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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/679,266	10/07/2003	Prasad Mantri	M4065.0910/P910	3128

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EXAMINER

TRIMMINGS, JOHN P

ART UNIT	PAPER NUMBER
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2138

DATE MAILED: 07/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/679,266

Applicant(s)

MANTRI, PRASAD

Examiner

John P. Trimmings

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is in response to the applicant's amendment dated 6/29/2006.

The applicant amended claims 1, 16, 21 and 23-44.

Claims 1-44 are pending.

Response to Amendment

1. As per Objection to the Drawings:

The examiner withdraws the objection to FIG. 1 and approves entry into the record of the revised drawing.

2. As per Rejections of claims 1, 23 and 44 under 35 USC 112 first paragraph:

The examiner has reconsidered the rejections of said claims, and the examiner withdraws the rejections of said claims under 35 USC 112 first paragraph. But in view of the amendments of said claims, the examiner is presenting new rejections (see below).

3. As per Rejections of claims 16, 21, 37 and 44 under 35 USC 112 second paragraph:

In view of the applicant's amendments, the examiner withdraws the rejections of said claims.

4. As per Rejections of claims 1-44 under 35 USC 103(a):

The examiner maintains the rejections of said claims as outlined in the previous office action (see below).

Response to Arguments

5. As per Rejection of claims 1-44 under 35 USC 103(a):

The applicant has argued (pages 29-30) as per independent claims 1, 23 and 44, and that the examiner has failed to provide motivation for combining the referenced art of Zhao #1, Zhao #2 and Patel, but the examiner respectfully disagrees. The examiner states motivation for Zhao #1 and Patel, which in combination are based on a need to conserve power in a CAM memory as well as to better characterization of faults therein (see office action page 8). And, as per motivation in response to the applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

The applicant also states generally that there is no reasonable expectation of success and that the references must teach all the claim limitations, all without further elaboration. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they

amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

And, finally, as per claims 1, 23 and 44, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies on page 30 of the Remarks (i.e., "followed by a walking "1" pattern ... followed by a row-by-row match test") are not recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

And so, the rejections of claims 1, 23 and 44, as well as their dependent claims 2-22 and 24-43 are maintained as being rejected under 35 USC 103(a) as previously outlined in the examiner's office action dated 4/3/2006.

Claim Rejections - 35 USC § 112 (New)

6. Claims 1, 23 and 44 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention. As pertains to claim 1, it has been amended to test given match lines in step (a), to place step (b) in dependence of step (a), to also broaden step (b) from "weak" pull-downs to "defective" pull-downs, and to place step (c)

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in dependence of step (b). And similarly, claims 23 and 44 were amended with the same dependencies and broadness. The examiner cannot find any reference in the disclosure as originally presented to support the amendments to the claims as follows:

- a. Identifying stuck match lines in a given match line. The applications test for a stuck match line in all match lines (see paragraph 24 and FIG. 4).
- b. Identifying defective pull-down lines for all stuck match lines. The application does not test the detected stuck match lines anywhere in the disclosure because these lines are disabled (see FIG. 4).
- c. Locate a faulty CAM cell among the defective pull-down lines. The defective pull-down lines are dependent on sampling the stuck match lines, and as such, there is no disclosure of sampling the stuck match lines.

Therefore, in view that the features as amended have not been originally disclosed, the claims 1, 23 and 44 are herein rejected.

Conclusion

7. The status of the application after the above actions is as follows:

Claims 1-44 are maintained as being rejected under 35 USC 103(a) as submitted in the previous office action (see response above).

Claims 1, 23 and 44 are newly rejected under 35 USC 112 first paragraph (see new rejections above).

Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

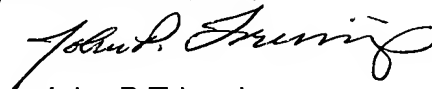
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Trimmings whose telephone number is (571) 272-3830. The examiner can normally be reached on Monday through Thursday, 7:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert DeCady can be reached on (571) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



John P Trimmings
Examiner
Art Unit 2138

jpt



ALBERT DECADY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

The diagram illustrates a semiconductor device 100, which is divided into two main functional blocks: a first circuit 110 and a second circuit 120. The device is controlled by word lines (WL, ML) and bit lines (BL, SD, SD#).

First Circuit 110: This circuit is connected to the word line WL and the bit line BL. It includes a PMOS transistor D0 with its source connected to BL and its gate to WL. The drain of D0 is connected to a node D. Node D is also connected to a differential pair of NMOS transistors, D1a and D1b, which are connected to the word line ML. The gates of D1a and D1b are connected to SD and SD#, respectively. The drains of D1a and D1b are connected to a common node D#, which is connected to a load capacitor.

Second Circuit 120: This circuit is connected to the word line WL and the bit line BL. It includes a PMOS transistor M1 with its source connected to BL and its gate to WL. The drain of M1 is connected to a node M2. Node M2 is also connected to a differential pair of NMOS transistors, M2 and M2#, which are connected to the word line ML. The gates of M2 and M2# are connected to SD and SD#, respectively. The drains of M2 and M2# are connected to a common node M3, which is connected to a load capacitor. The node M3 is also connected to a memory cell M.

FIG. 1 (PRIOR ART)